

Fire

Indiana Department of Homeland Security

Interagency Press Release Bank



Fire

Contents

Fire	3
Keep Your Home Fire Safe.....	3
Disaster-related Fires	7
Protecting Your Home Before a Wildfire	10
What to Do Before a Wildfire.....	13
What to Do During a Wildfire	14
Surviving a Fire.....	16
Smoke Hazard	19
What to Do After a Fire	22
Smoke Alarms and Fire Extinguishers	31
Treating Burns	33
Use Caution with Alternative Heating Sources	35

Fire

Fire

Keep Your Home Fire Safe

Most home-heating fires involve portable heaters and space heaters, with room gas heaters and kerosene heaters accounting for the highest fatality risk. But all heating systems—including fireplaces—can be dangerous if they are not used and maintained properly.

Before buying any heating equipment, check with your local fire department to make sure what you are buying conforms to local building and fire codes. When shopping for portable or space heaters, look for automatic shut-off safety features. Install a smoke detector outside every sleeping area and on every floor in your home.

Vents and chimneys:

- All fueled heaters must be vented to prevent dangerous carbon-monoxide build-up in your home. Creosote and carbon deposits, caused by inefficient combustion in fireplaces and wood stoves, can coat chimney flues and pose a serious fire hazard.
- Have your chimney inspected and cleaned by a professional before each heating.
- Unusually high concentrations of chimney deposits could mean your fireplace or wood stove is not burning efficiently and should be inspected for safety.
- If you use a wood stove, have the flue and chimney connection inspected and cleaned regularly.
- Consider installing a spark arrester on top of any chimney that vents a solid-fuel stove or fireplace. Check with your local fire department for more instructions on installing heaters and vents.

Space heaters:

- When buying a new space heater, make sure it carries the mark of an independent testing laboratory and is legal for use in your community.
- Keep all combustible materials away from portable and space heaters.
- Place all space heaters at least three feet away from furniture, walls, curtains or anything else that is flammable.
- Plug your electric-powered space heater into an outlet with sufficient capacity and NEVER into an extension cord.

Fire

- Turn off space heaters whenever the room they are in is unoccupied or under circumstances when manufacturer's instructions say they should be turned off.
- Portable space heaters are easy to knock over in the dark, so turn them off when you go to bed.

Liquid fuel safety:

- Use the proper grade of fuel for your liquid-fueled space heater. Never use a substitute or lower-grade fuel and never use gasoline in any heater not approved for gasoline use.
- Refuel your heater outdoors in an area away from structures where spills will not present a fire hazard. Refuel only when the equipment is cool to avoid igniting fumes.

Gas-fueled heaters:

- Make sure fuel-burning equipment is vented to the outside, that the venting is kept clear and unobstructed and that the exit point is properly sealed around the vent.
- Never install unvented gas heaters in bedrooms or bathrooms. Carbon monoxide can build up to dangerous levels in any small, enclosed space.

Wood or coal stoves:

- To protect the floor under wood or coal stoves from heat and stray embers, put down approved protection or a floor protector listed with a testing lab.
- Install wood and coal stoves at least three feet away from walls and furniture, unless the stove is listed for a lesser clearance.
- Use only dry, seasoned wood in a fireplace or wood stove to avoid the build-up of creosote, an oily deposit that easily catches fire and accounts for most chimney fires and the largest share of home heating fires.
- Use only paper or kindling wood, not flammable liquid, to start the fire.
- Do not use artificial logs in wood stoves.

Fireplaces:

- Insulate chimneys and place spark arrestors on top. The chimney should extend at least three feet higher than the roof. Remove branches hanging above and around the chimney.

Fire

- When you use your fireplace, protect your home from sparks by using a fire screen made of sturdy metal or heat-tempered glass.
- Burn only seasoned wood, never rubbish, in your fireplace.
- Add wood carefully; sparks can escape into the room while the screen is open.
- Allow fireplace and woodstove ashes to cool before disposing in a metal container, a safe distance from your home and other structures.
- Be sure dampers are in working order and never leave fires unattended—especially in an area used by children or pets.

Candles:

- Never leave a burning candle unattended.
- Extinguish candles before leaving a room, leaving your home, or going to sleep. Falling asleep was a factor in 12% of home candle fires and 26% of associated deaths, according to the National Fire Protection Association.
- Keep candles at least 12 inches away from anything that can burn, including decorations, paper, wreaths and bows.
- Keep all candles, matches and lighters out of reach of children and pets.
- Make sure lit candles are not in places where they can be accidentally knocked over.
- Use sturdy, non-flammable candle holders that will collect dripping wax.
- Trim wicks to ½ inch. Long or crooked wicks can cause uneven burning and dripping.
- Do NOT use candles in bedrooms and sleeping areas.
- Do NOT use candles as a decoration on a Christmas tree.
- Use a flashlight, not a candle, for emergency lighting.
- Consider using battery-operated, flameless candles.
- Extinguish candles when they burn down to within two inches of their holder or decorations.
- Blow out a candle by holding your finger in front of the flame and blowing at it. The air will flow around your finger and extinguish the candle from both sides, preventing wax spatter.

Flammable items:

- Never use gasoline, benzene, naphtha or similar flammable liquids indoors.
- Store flammable liquids in approved containers, in well-ventilated storage areas.
- Never smoke near flammable liquids.

Fire

- Safely discard all rags, etc., that have been soaked in flammable liquids in a metal container.

Matches and smoking:

- Keep matches and lighters up high, away from children; preferably in a locked cabinet.
- Never smoke in bed or when drowsy or medicated.
- Provide smokers with deep, sturdy ashtrays.
- Douse cigarette and cigar butts with water before disposal.

Home Fires Caused by Alternative Heating

According to the National Fire Protection Association (NFPA), in 2008, heating equipment was the second leading cause of home fires in the United States. More than 66,000 reported fires caused 480 civilian deaths, 1,660 civilian injuries and more than \$1 billion in property damage.

Tips for safe alternative heating:

- According to NFPA, between 2004 and 2008, the leading factor contributing to home heating fires was failure to properly clean creosote, an oily deposit that easily catches fire, from solid-fueled heating equipment such as chimneys.
- Regular cleaning and annual inspections by a professional chimney sweep will help keep a fireplace free from obstructions and creosote.
- Among fatal home heating fires, the leading factor contributing to the ignition of the fires was heating equipment stationed too close to flammable materials.
- Keep all flammable materials, such as draperies, blankets, clothing, bedding, mattresses, upholstered furniture, etc., at least three feet away from heating equipment.
- Use only paper or kindling wood, not a flammable liquid, to start a fire.
- Use only dry, seasoned wood in a fireplace or wood stove to avoid the buildup of creosote. Do not use artificial logs in wood stoves.
- If using a gas fireplace, ensure the fireplace vents properly and that there is a functioning carbon monoxide detector in the room.
- Keep fire extinguishers on hand and know how to use them.

Space heater safety:

- When buying a new space heater, make sure it carries the mark of an independent testing laboratory and is legal for use in your community.

Fire

- Use the proper grade of fuel for your liquid-fueled space heater and never use gasoline in any heater not approved for gasoline use.
- Refuel space heaters only in a well ventilated area and when the equipment is cool.
- Plug power cords only into outlets with sufficient capacity and never into an extension cord.
- Turn off space heaters whenever the room they are in is unoccupied.
- Turn off space heaters when you go to bed each night to avoid knocking them over in the dark.

Tips for reducing heating costs:

- Make sure your home is properly insulated.
- Caulk and weather strip doors and windows to keep out cold air.
- Install a programmable thermostat and set it to lower the temperature at night and whenever the house is unoccupied.
- Keep doors and windows closed as much as possible, including overhead doors on attached garages.
- Insulate the pipes around the water heater with inexpensive, easy-to-install pipe insulation.
- Always unplug holiday lights before going to bed or leaving the house.

Disaster-related Fires

Disaster-related fires are fires created by emergency lighting or heating sources. Understanding how disaster-related fires can start and preparing to prevent those fires can save lives and property.

Home heating safety:

- Most home-heating fires involve portable heaters and space heaters; with room gas heaters and kerosene heaters accounting for the highest fatality risk. But all heating systems, including fireplaces, can be dangerous if they are not used and maintained properly.
- Before buying any heating equipment, check with your local fire department to make sure what you are buying conforms to local building and fire codes. When shopping for portable space heaters, look for automatic shut-off safety features.
- All portable heating equipment should bear the mark of an independent testing laboratory, indicating that the heater has met basic safety standards.
- Inspect all heating equipment annually and clean as necessary.

For vents and chimneys remember:

Fire

- All fueled heaters must be vented to prevent dangerous carbon-monoxide build-up in your home.
- Creosote and carbon deposits, caused by inefficient combustion in fireplaces and wood stoves, can coat chimney flues and pose a fire hazard. You should have your chimney inspected by a professional before each heating season and have it cleaned, if necessary.
- Unusually high concentrations of chimney deposits could mean your fireplace or wood stove is not burning efficiently and should be inspected for safety.
- Consider installing a spark arrestor on top of any chimney that vents a solid-fuel, such as stoves and fireplaces.
- Check with your local fire department for more instructions on installing heaters and vents.

For space heaters remember:

- Keep all combustible materials away from portable and space heaters. Place all space heaters at least three feet away from furniture, walls, curtains and anything else that burns.
- Plug your electric-powered space heater into an outlet with sufficient capacity and NEVER into an extension cord.
- Turn off space heaters whenever the room they are in is unoccupied or under other circumstances when the manufacturer's instructions say they should be turned off.
- Portable heaters are easy to knock over in the dark and should be turned off before you go to bed.
- Use the proper grade of fuel for you liquid-fueled space heater. Refuel your heater outdoors in an area away from structures where spills will not present a fire hazard. Refuel only when the equipment is cool, adding fuel to a hot heater can cause the fumes to ignite.

For fireplaces remember:

- When you use your fireplace, protect your home from sparks by using a fire screen made of sturdy metal or heat-tempered glass.
- Burn only seasoned wood—never rubbish—in your fireplace.
- Add wood carefully; sparks can escape into the room while the screen is open.
- Allow fireplace and woodstove ashes to cool before disposing in a metal container, which is kept a safe distance from your home.
- Be sure dampers are in working order, and never leave fires unattended—especially in an area used by children or pets.

Fire

Candle safety tips:

- Many times candles are used for alternate lighting as decoration around the holidays and should be used with caution.
- Never leave a burning candle unattended.
- Extinguish candles before leaving a room, leaving your home, or going to sleep.
- Keep candles at least 12 inches away from anything that can burn including decorations, paper, wreaths and bows.
- Keep all candles, matches and lighters out of reach of children and pets.
- Make sure lit candles are not in places where they can be accidentally knocked over.
- Use sturdy, non-flammable candle holders that will collect dripping wax.
- Trim wicks to ½ inch long or crooked wicks can cause uneven burning and dripping.
- Do not use candles in bedrooms or sleeping areas.
- Use a flashlight, not a candle, for emergency lighting.
- Consider using battery-operated, flameless candles.
- Extinguish candles when they burn down to within two inches of their holder or decorations.
- To avoid hot wax spatter, blow out a candle by holding your finger in front of the flame and blow at it. The air flow around your finger and extinguish the candle from both sides, preventing spatter.
- Never use a candle as a decoration on a Christmas tree.

Holiday decorating safety:

- When you bring your Christmas tree home, cut one or two inches off the bottom and place the tree in water as soon as possible.
- Remember to keep your tree base filled with water at all times. Left un-watered over time, a tree's needles can dry out and catch fire more easily.
- Keep your tree a safe distance (at least three feet) from fireplaces, radiators, space heaters, heating vents and other sources of heat.
- Make sure the tree is not blocking an exit.
- Carefully inspect each electrical decoration before plugging it in. Cracked sockets and frayed, bare or loose wires can cause serious electric shock or start a fire.

Fire

- Be sure to use light strings that bear the Underwriters Laboratories (UL) mark. The UL mark on a product means that UL has tested samples of the product for risk of fire, electric shock and other hazards.
- Do not connect more than three light string sets together. Light strings with screw-in bulbs should have a maximum of 50 bulbs connected together.
- Turn off all electrical light strings and decorations in your home before leaving home or going to bed.

Protecting Your Home Before a Wildfire

Protecting your home from wildfire is your responsibility. Listed here are several safety precautions that you can take to reduce the risk of fire losses. Some you can implement immediately, while others need to be considered at the time of construction or remodeling. You should also contact your local fire department, forestry office, emergency management office or building department for information about local fire laws, building codes and protective measures. Obtain local building codes and weed abatement ordinances for structures built near wooded areas.

When building or remodeling:

- Choose building locations wisely; canyon and slope locations increase exposure to wildfires.
- Use fire-resistant materials in the siding of your home, such as stucco, metal, brick, cement shingles, concrete and rock. You can treat wood siding with UL-approved fire retardant chemicals, but the treatment and protection are only temporary and must be repeatedly treated. The roof is especially vulnerable in a wildfire. Embers and flaming debris can travel great distances and could land on your roof; starting a new fire.
- Choose safety glass for windows and sliding glass doors. Single pane windows allow radiated heat to pass through and ignite combustible materials inside. The larger the pane of glass, the more vulnerable it is to fire. Dual or triple pane thermal glass and fire-resistant shutters or drapes help reduce the risk. You can also install non-combustible awnings to shield windows and use shatter-resistant glazing such as tempered or wire glass.
- When designing louvers, place them in the vertical wall rather than the soffit of the overhang.
- Avoid designs that include wooden decks and patios. Any porch, balcony or overhang with exposed space underneath is fuel for an approaching fire. Overhangs ignite easily by flying embers and by the heat and fire that get trapped underneath. If vegetation is allowed to grow underneath or if the space is used for storage, the hazard is increased significantly.

Fire

- Use ½ inch mesh screen beneath porches, decks, floor areas and the home itself. Also screen openings to floors, roof and attic.
- Mark the entrance to your property with address signs that are clearly visible from the road and make sure roads are wide enough to allow firefighting equipment to get through.

Create a safety zone extending out at least 100 feet around your house. In this zone, reduce or replace as much of the most flammable vegetation as possible. If you live on a hill, you may need to extend the zone for several hundred feet to provide the desired level of safety.

Create an additional, 30-foot zone, inside the first one and immediately next to your home. Keep the volume of vegetation in this zone to a minimum. If you live on a hill, extend the zone furthest on the downhill side. Fire spreads rapidly uphill. The steeper the slope, the more open space you will need to protect your home. Swimming pools and patios can be a safety zone and stone walls can act as heat shields and deflect flames. In this zone you should also do the following:

- Remove vines from the walls of your house and any dead branches that extend over the roof.
- Clear the area of leaves, brush, evergreen cones, dead limbs and fallen trees.
- Move shrubs and other landscaping away from the sides of the house.
- Prune branches and shrubs within 15 feet of chimneys and stove pipes and ask the power company to clear branches from power lines and install electrical lines underground.
- Remove tree limbs within 15 feet of the ground and thin a 15-foot space between tree crowns.
- Replace highly flammable vegetation such as pine, eucalyptus, junipers and fir trees with lower growing, less flammable species such as hardwood trees. Ask your local fire department or garden store for additional suggestions.
- Cut the lawn often, keeping the grass at a maximum of two inches. Watch grass and other vegetation near the driveway, a source of ignition from automobile exhaust systems.

Clear all combustibles within 30 feet of any structure:

- Clear gutters and roof of leaves and debris.
- Avoid using bark and wood chip mulch.
- Stack firewood 100 feet away from any uphill structure.
- Store combustible or flammable materials in approved safety containers and away from the house.

Fire

- Keep the gas grill and propane tank at least 15 feet from any structure. Clear an area 15 feet around the grill. Place a ¼ inch mesh screen over the grill. Always use the grill cautiously but refrain from using it during dry weather when the risk of wildfire is greater.
- Place stove, fireplace and grill ashes in a metal bucket, soak in water for two days and then bury the cold ashes in mineral soil.
- Store gasoline, oily rags and other flammable materials in approved safety cans and place them in a safe location away from the base of buildings.
- Inspect chimneys at least twice a year. Clean them at least once a year. Keep dampers in good working order. Equip chimneys and stove pipes with a spark arrester that meets the requirements of National Fire Protection Association Code 211. Contact your local fire department for exact specifications. Chimneys should extend at least three feet above the roof.
- Any attic vent, soffit vent, louver or other opening can allow embers and flaming debris to enter a home and ignite it. Cover all openings with ¼ inch or smaller corrosion-resistant wire mesh.
- Clear leaves, trash and other combustible materials out from underneath sun decks and porches.
- Extend ½ inch mesh screen from all overhangs down to the ground and enclose wooden stilts with non-combustible material such as concrete, brick, rock, stucco or metal.
- Use non-combustible patio furniture and covers.

Plan for water and other needs:

- Install a smoke detector on each level of your home, especially near bedrooms. Test monthly and change the batteries at least once a year.
- Teach each family member how to use the fire extinguisher (A-B-C type) and where it is kept.
- Keep a ladder that will reach the roof.
- Keep household items for use as fire tools: a rake, axe, handsaw, or chainsaw, bucket and shovel.
- Identify and maintain an adequate outside water source such as a small pond, cistern, well, swimming pool or hydrant.
- Have a long garden hose able to reach any area of the home and other structures on the property.
- Install freeze-proof exterior water outlets on at least two sides of the home and near other structures on the property. Install these additional outlets at least 50 feet from the home.

Fire

- Consider obtaining a portable gasoline-powered pump in case electrical power is cut off.

What to Do Before a Wildfire

For people living near wild land areas or using recreational facilities in wilderness areas, the threat of wildfires is real. Learn about the history of wildfire in your area and be aware of recent weather activity. A long period without rain increases the risk of wildfire. Wildfires often begin unnoticed and spread quickly, igniting brush, trees and homes. Reduce your risk by preparing now before a wildfire approaches. Meet with your family and decide what to do and where to go if wildfires threaten your area.

When a wildfire threatens, you will not have time to shop or search for supplies. Assemble a Disaster Supplies Kit with items you may need if you are advised to evacuate. Store these supplies in sturdy, easy-to-carry containers such as backpacks or duffle bags. Remember special items such as formula and medication for infants and elderly persons.

Create a family disaster plan. Wildfire and other types of man-made and natural disasters can strike quickly and with very little or no warning. You can cope with emergencies by preparing in advance and working together:

- Post emergency numbers by every telephone.
- Show responsible family members how and when to shut off water, gas and electricity at the main switches. Remember, if the gas is turned off, it must be turned back on by a professional.
- Contact your local fire department to learn about home fire hazards.
- Contact your local American Red Cross chapter for first aid and CPR information and training.

Follow local burning laws:

- Make sure you notify local authorities before burning debris in a wooded area.
- If required, obtain a burning permit.
- Use an approved incinerator with a safety lid or covering with holes no larger than $\frac{3}{4}$ inch.
- Create at least a 10-foot clearing around the incinerator before burning debris.
- Have a fire extinguisher or garden hose on hand.

Fire

What to Do During a Wildfire

For people living near wild land areas or using recreational facilities in wilderness areas, the threat of wildfires is real. Learn about the history of wildfire in your area, and be aware of recent weather activity. A long period without rain increases the risk of wildfire. Wildfires often begin unnoticed and spread quickly, igniting brush, trees and homes.

If you see a wildfire, call 9-1-1 immediately. NEVER assume that someone else has already called. Describe the location of the fire, speak slowly and clearly and answer any questions asked by the dispatcher.

If you are advised to evacuate, do so immediately.

- Evacuate immediately if you are told to do so.
- If you suspect that danger is imminent, you should evacuate without waiting for an official order.
- Wear protective clothing such as sturdy shoes, cotton or woolen clothing, long pants, long-sleeved shirt, gloves and a handkerchief to protect your face.
- Take your Disaster Supplies Kit.
- Watch for changes in the speed and direction of the fire and smoke and choose a route away from the fire hazard.
- Advise someone outside the threatened area of your departure and intended destination.

If you are warned that a wildfire is threatening your area, but not advised to evacuate yet, and you are confident you have time, you should take the following protective measures:

- Prepare to evacuate by backing your car into the garage or park it in an open space facing the direction of escape. Shut doors and roll up windows, but leave the key in the ignition. Close garage windows and doors, but leave them unlocked.
- Place valuable papers, mementos and anything “you can’t live without” inside the car in the garage. Pets should also be put in the car.
- Disconnect any automatic garage door openers so that doors can still be opened by hand if the power goes out.
- Listen to your battery-operated radio for reports and evacuation information.
- Follow the instructions of local officials.

Fire

- Arrange temporary housing at a friend or relative's home outside the threatened area.
- If you must evacuate, do NOT lock up. Leave doors and windows closed but unlocked. It may be necessary for firefighters to gain quick entry into your home to fight fire. The entire area will be isolated and patrolled by sheriff's deputies or police.

Inside:

- Close windows, vents, doors, venetian blinds and non-combustible window coverings and heavy drapes. Remove lightweight curtains.
- Seal attic and ground vents with pre-cut plywood or commercial seals.
- Shut off gas at the meter.
- Turn off pilot lights.
- Open fireplace damper and close fireplace screens.
- Move flammable furniture into the center of the home away from windows and sliding-glass doors.
- Turn on a light in each room to increase the visibility of your home in heavy smoke.

Outside:

- Seal attic and ground vents with pre-cut plywood or commercial seals.
- Turn off propane tanks.
- Set up the portable gasoline-powered pump.
- Place lawn sprinklers on the roof and near above-ground fuel tanks. Wet the roof.
- Wet or remove shrubs within 15 feet of the home.
- Connect garden hoses and fill any pools, hot tubs, garbage cans, tubs or other large containers with water.
- Gather fire tools and place a ladder against the house in clear view.
- If you become trapped by a wildfire DO NOT RUN! Survival in a home or vehicle is dangerous, but possible. You will not be able to outrun a wildfire.
- Stay calm, and DO NOT RUN.
- If at home, go inside. The fire line will pass before your house burns down. Once it is past, then get out immediately.
- If you are in a vehicle, roll up the windows and close air vents. Drive slowly with headlights on. Watch for other vehicles and pedestrians. Do not drive through heavy smoke.

Fire

- If you have to stop, park away from the heaviest trees and brush. Turn headlights on and the ignition OFF.
- Get on the floor and cover up with a blanket or coat.
- The engine may stall and not restart. Air currents may rock the car. Some smoke and sparks may enter the vehicle. The temperature inside the vehicle will rise, but metal gas tanks and containers rarely explode.
- Stay in the vehicle until the fire passes.

If you are caught in the open the best temporary shelter is in a sparse fuel area.

- On a steep mountainside, the back side is safer. Remember that fire travels faster uphill.
- Avoid canyons, natural “chimneys” and saddles.
- If a road is nearby, lie face down along the road cut or in the ditch on the uphill side. Cover yourself with anything that will shield you from the fire’s heat.
- If hiking in the back country, seek a depression with sparse fuel. Clear fuel away from the area while the fire is approaching and then lie face down in the depression and cover yourself. Stay down until after the fire passes.

After a wildfire passes:

- Wait until you are advised that it is safe to return home before you do so.
- Once home, check the roof immediately. Put out any sparks or embers. Check the attic for hidden burning sparks.
- If you have a fire, call the fire department or ask your neighbors to help fight it.
- If the power is out, try connecting a hose to the outlet on your water heater.
- For several hours after the fire, maintain a “fire watch.” Re-check for smoke and sparks throughout the house.

Surviving a Fire

Each year, more than 4,000 Americans die and more than 25,000 are injured in fires, many of which could be prevented. Direct property loss due to fires is estimated at \$8.6 billion annually.

Fire spreads quickly; there is no time to gather valuables or make a phone call. In just two minutes, a fire can become life-threatening. In five minutes, a residence can be engulfed in flames.

Fire

Heat and smoke from fire can be more dangerous than the flames. Inhaling the super-hot air can sear your lungs. Fire produces poisonous gases that make you disoriented and drowsy. Instead of being awakened by a fire, you may fall into a deeper sleep. Asphyxiation is the leading cause of fire deaths, exceeding burns by a three-to-one ratio.

Smoke alarms:

- Install smoke alarms. Properly working smoke alarms decrease your chances of dying in a fire by half.
- Place smoke alarms on every level of your residence. Place them outside bedrooms on the ceiling or high on the wall (4 to 12 inches from ceiling), at the top of open stairways or at the bottom of enclosed stairs and near (but not in) the kitchen.
- Test and clean smoke alarms once a month and replace batteries at least once a year. Replace smoke alarms once every 10 years.

Escaping the fire:

- Review escape routes with your family. Practice escaping from each room.
- Make sure windows are not nailed or painted shut. Make sure security gratings on windows have a fire safety opening feature so they can be easily opened from the inside.
- Consider escape ladders if your residence has more than one level, and ensure that burglar bars and other antitheft mechanisms that block outside window entry are easily opened from the inside.
- Teach family members to stay low to the floor (where the air is safer in a fire) when escaping from a fire.
- Clean out storage areas. Do not let trash, such as old newspapers and magazines, accumulate.

Flammable items:

- Never use gasoline, benzene, naphtha or similar flammable liquids indoors.
- Store flammable liquids in approved containers in well-ventilated storage areas.
- Never smoke near flammable liquids.
- Discard all rags or materials that have been soaked in flammable liquids after you have used them. Safely discard them outdoors in a metal container.

Fire

- Insulate chimneys and place spark arresters on top. The chimney should extend at least three feet above than the roof. Remove branches hanging above and around the chimney.

Heating sources:

- Be careful when using alternative heating sources.
- Check with your local fire department on the legality of using kerosene heaters in your community. Be sure to fill kerosene heaters outside, and only after they have cooled.
- Place heaters at least three feet away from flammable materials. Make sure the floor and nearby walls are properly insulated.
- Uses only the type of fuel designated for your unit and follow all the manufacturer's instructions.
- Store ashes in a metal container outside and away from your residence.
- Keep open flames away from walls, furniture, drapery and flammable items.
- Keep a screen in front of the fireplace.
- Have heating units inspected and cleaned annually by a certified specialist.

Matches and smoking:

- Keep matches and lighters up high, away from children, preferably in a locked cabinet.
- Never smoke in bed or when drowsy or medicated.
- Provide smokers with deep, sturdy ashtrays.
- Douse cigarette and cigar butts with water before disposal.

Electrical wiring:

- Have the electrical wiring in your residence checked by an electrician.
- Inspect extension cords for frayed or exposed wires or loose plugs.
- Make sure outlets have cover plates and no exposed wiring.
- Make sure wiring does not run under rugs, over nails or across high-traffic areas.
- Do not overload extension cords or outlets. If you need to plug in two or three appliances, get an Underwriter Laboratories (UL) approved unit with built-in circuit breakers to prevent sparks and short circuits.
- Make sure insulation does not touch bare electrical wiring.

Fire

Other:

- Sleep with your door closed.
- Install A-B-C-type fire extinguishers in your residence and teach family members how to use them.
- Consider installing an automatic fire sprinkler system in your residence.
- Ask your local fire department to inspect your home for fire hazards.

What to do during a fire:

If your clothes catch on fire, you should:

- Stop, drop, and roll - until the fire is extinguished. Running only makes the fire burn faster.

To escape a fire, you should:

- Check closed doors for heat before you open them. If you are escaping through a closed door, use the back of your hand to feel the top of the door, the doorknob and the crack between the door and door frame before you open it. Never use the palm of your hand or fingers to test for heat - burning those areas could impair your ability to escape a fire (i.e., ladders and crawling).
- Crawl low under any smoke to your exit - heavy smoke and poisonous gases collect along the ceiling first.
- Close doors behind you as you escape to delay the spread of the fire.
- Stay out once you are safely out. Do not re-enter. Call 9-1-1.

Smoke Hazard

Smoke from house fires and wildfire is a mixture of gases and fine particles from burning trees and/or other biological and synthetic materials. Smoke can hurt your eyes, irritate your respiratory system and worsen chronic heart and lung conditions.

Know whether you are at increased risk:

Fire

- If you have a heart or lung disease, such as congestive heart failure, angina, COPD, emphysema or asthma, you are more at risk to experience adverse effects than healthy people.
- Older adults are more likely to be affected by smoke, possibly because they are more likely to have heart or lung diseases than younger people.
- Children are more likely to be affected by health threats from smoke because their airways are still developing and because they breathe more air per pound of body weight than adults.
- However, when smoke levels are high enough, even healthy people may experience some of these symptoms.

Hot door	Cool door
Do not open. Escape through a window. If you cannot escape, hang a white or light-colored sheet outside the window, alerting firefighters to your presence.	Open slowly and ensure fire and/or smoke is not blocking your escape route. If your escape route is blocked, shut the door immediately and use an alternate escape route, such as a window. If clear, leave immediately through the door and close it behind you. Be prepared to crawl. Smoke and heat rise. The air is clearer and cooler near the floor.

Smoke can cause:

Fire

- Coughing
- A scratchy throat
- Irritated sinuses
- Shortness of breath
- Chest pain
- Rapid heartbeat
- Headaches
- Stinging eyes
- A runny nose
- Asthma exacerbations
- Fatigue

Smoke may worsen symptoms for people who have pre-existing respiratory or heart conditions, such as respiratory allergies, asthma or chronic obstructive pulmonary disease (COPD), in the following ways:

- Inability to breathe normally
- Cough with or without mucus
- Chest discomfort
- Wheezing and shortness of breath

Protect yourself by limiting your exposure to smoke and following these ways to protect your health:

- Pay attention to local air quality reports and public health messages detailing additional safety measures. Listen and watch for news or health warnings about smoke. Find out if your community provides reports about the Environmental Protection Agency's Air Quality Index (AQI).
- Refer to visibility guides if they are available. Not every community has a monitor that measures the amount of particles in the air. In the western part of the United States, some communities have guidelines to help people estimate AQI based on how far they can see.
- If you are advised to stay indoors, keep indoor air as clean as possible. Keep windows and doors closed. Run an air conditioner if you have one, but keep the fresh-air intake closed and

Fire

the filter clean to prevent outdoor smoke from getting inside. If you do not have an air conditioner and it is too warm to stay inside with the windows closed, seek shelter elsewhere.

- Do not add to indoor pollution. When smoke levels are high, do not use anything that burns, such as candles, fireplaces or gas stoves. Do not vacuum, because vacuuming stirs up particles already inside your home. Do not smoke, because smoking puts even more pollution into the air.
- Follow your doctor's advice about medicines and about your respiratory management plan if you have asthma or another lung disease, Call your doctor if your symptoms worsen.
- Do not rely on dust masks for protection. Paper "comfort" or "dust" masks commonly found at hardware stores are designed to trap large particles, such as sawdust. These masks will not protect your lungs from smoke. A properly worn "N95" mask will offer some protection.

What to Do After a Fire

Immediately after:

- Have injuries treated by a medical professional. Wash small wounds with soap and water. To help prevent infection of small wounds, use bandages and replace them if they become soiled, damaged or waterlogged.
- Remain calm. Pace yourself. You may find yourself in the position of taking charge of other people. Listen carefully to what people are telling you, and deal with life threatening situations first.
- Check with the fire department to make sure your residence is safe to enter. Do not cut or walk past colored tape that was placed over doors or windows to mark damaged areas unless local authorities advise that it is safe to do so. If a building inspector has placed a color-coded sign on the home, do not enter it until you get more information, advice and instructions about what the sign means and whether it is safe to enter your home.

Contact your local disaster relief service, such as the American Red Cross or the Salvation Army, to help with your immediate needs, such as temporary housing, food, medicine, eyeglasses, clothing and other essential items.

Recovering emotionally:

Fire

- Your own and your family's emotional care and recovery are just as important as rebuilding your home and healing physical injuries.
- You may be surprised at how you and others may feel after a disaster. Disasters can stir up many different feelings and thoughts. People may experience fear concerning their safety or that of a loved one, shock, disbelief, grief, anger and guilt. Memory problems, anxiety and/or depression are also possible after experiencing a disaster.
- Disasters are upsetting experiences for everyone involved. Children, senior citizens, people with disabilities and people for whom English is not their first language are especially at risk. Children may become afraid and some elderly people may seem disoriented at first. People with disabilities may require additional assistance. It is important to let children and elderly people know that they are safe and that you will help them find a safe place to stay.
- It is also important that you try to talk with them in a calm way. When disaster strikes, a child's view of the world as a safe and predictable place is temporarily lost. Children become afraid that the event will happen again and that they or their family may be injured or killed. The damage, injuries and deaths that can result from an unexpected or uncontrollable event are difficult for most children to understand. How a parent or other adult reacts to a child following any traumatic event can help children recover more quickly and more completely. Children of different ages react in different ways to trauma. Your local Red Cross can provide a variety of materials to help children cope with disaster.

Some basic steps you can take to meet physical and emotional needs:

- Try to return to as many of your personal and family routines as possible.
- Get rest and drink plenty of water.
- Limit your exposure to the sights and sounds of disaster, especially on television, the radio and in the newspapers.
- Focus on the positive.
- Recognize your own feelings.
- Reach out and accept help from others.
- Do something you enjoy. Do something as a family that you have all enjoyed in the past.
- Stay connected with your family and/or other support systems.

Fire

- Realize that recovery can take time.
- If you have more questions or observe unusual behavior in your children, who you think may be caused by a reaction to the disaster, contact your local Red Cross chapter, child's counselor or community professional for additional information and help.
- The Red Cross can also arrange for you to talk with a member of its disaster staff who has special expertise in dealing with disaster stress.

Helping pets:

- If you have pets, try to find and comfort them. A scared animal may react by biting or scratching, so handle animals carefully and calmly.
- Pets can become upset and react in unusual ways, such as spraying urine, defecating on floors or scratching/biting furnishings. Since pets will need regular care and attention to help them calm down, try to leave pets with a family member, friend, veterinarian or boarding facility while you are cleaning up your home. Animals are naturally inquisitive and could be injured if they are brought back to a damaged home.
- Use toys, a blanket or favorite human's unsoiled clothing to comfort pets.
- Make sure pets are fed their usual diet and have plenty of water.
- Visit your pets regularly, speak calmly and take some time out to play with them. Doing so can also help you in your recovery.

After a wildfire passes:

- Wait until you are advised that it is safe to return home before you do so.
- Once home, check the roof immediately. Put out any sparks or embers. Check the attic for hidden burning sparks.
- If you have a fire, call the fire department or ask your neighbors to help fight it.
- If the power is out, try connecting a hose to the outlet on your water heater.
- For several hours after the fire, maintain a "fire watch." Re-check for smoke and sparks throughout the house.

Checking your home:

Fire

- Check with the fire department to make sure your residence is safe to enter. Do not cut or walk past colored tape that was placed over doors or windows to mark damaged areas unless local authorities advise that it is safe to do so. If a building inspector has placed a color-coded sign on the home, do not enter it until you get more information, advice and instructions about what the sign means and whether it is safe to enter your home.
- If you have children, leave them with a relative or friend while you conduct your first inspection of your home after the fire. The site may be unsafe for children, and seeing the damage firsthand may upset them and cause long-term effects, including nightmares.

Checking for structural damage:

- Check the outside of your home before you enter. Look for loose power lines, broken or damaged gas lines, foundation cracks and other damage. See if porch roofs and overhangs still have all their supports. If you see damage on the outside, it could indicate that the inside of your home is seriously unsafe. Ask a building inspector or contractor to check the structure before you enter.
- If there is no significant visible outside damage, then check inside. Carefully open the door. If it is jammed, do not force it open. It may be providing support to the structure of your home. If you force open the door, it may cause parts of your home to collapse or become more damaged. Find another way to enter. Those who do enter their damaged homes should wear long pants, a long-sleeved shirt, closed-toed rubber-soled shoes or boots and work gloves. Depending on the situation, dust masks, safety glasses (or goggles) and/or a hard hat and other safety equipment may be needed. Many people are injured after disasters during clean-up. The last thing that you want to do is add injuries to the list of things to take care of after a disaster.
- Smell or sniff for gas. If you detect the odor of natural or propane gas or hear a hissing noise, leave the property immediately and get well away from it. Call the fire department using a cellular telephone or a neighbor's phone. If the fire department instructs you to do so, turn off the gas with the proper tool at the valve on the outside meter. When natural gas is turned off at the main valve, it must be turned back on by a professional to ensure that the proper sequence is followed to restore gas service and prevent possible gas leaks, fires or an explosion.
- If you have a propane tank system, turn off all valves and contact a propane supplier to check out the system before you use it again.

Fire

- Throughout your first day back, check for smoke and embers throughout the home, including the attic.
- Beware of animals, such as rodents, snakes, spiders and insects that may have entered your home. As you inspect your home, tap loudly and often on the floor with a stick to give notice that you are there. Animals (including snakes) do not want encounters with humans, and will move away if you make your presence known.
- Objects, such as furnishings or building parts that have been damaged, may be unstable. Be very cautious when moving near them. Avoid holding, pushing or leaning against damaged building parts.
- Check the ceiling for signs of sagging. Water from fire hoses or rain may wet plaster or wallboard. Wet plaster or wallboard is very heavy and dangerous if it falls. Since damaged plaster or wallboard will have to be replaced anyway, you can try to knock it down but do so carefully. Wear protective clothing, including eye protection and a hard hat. Use a long stick and stand well away from the damaged area. If the ceiling is sagging from the weight of water, poke holes in the ceiling starting from the outside of the bulge to let water drain out slowly. Take your time and knock away small chunks at a time. Striking the center of the damaged area first may cause the ceiling to collapse.
- Check the floor for signs of sagging. Again, flooring such as plywood that was damaged by water from fire hoses could collapse under human weight. Avoid walking on sagging floors. If small sections of floors are sagging, place thick plywood panels or thick, strong boards on the floor to cover the damaged area. Be sure the wood extends at least 8–12 inches on each side of the sagging area.
- If it is dry out, open windows and doors to ventilate and dry your home.
- If power is out, use a flashlight to inspect for damage and for as long as the power remains out. Do not use any open flame, including candles, to inspect for damage or serve as alternate lighting.
- Disconnect and check all appliances for water damage before using them.
- Make temporary repairs such as covering holes, bracing walls and removing debris. Save all receipts (See financial section.).
- Take photographs of the damage. You may need these to substantiate insurance claims later.

Fire

Checking utilities and major systems:

Telephones:

- Check each telephone to see if it is still on the hook. Hang up any phones that may have been knocked off. Wait a few minutes, and then pick up one phone to listen for a dial tone to know whether you have working telephone service.
- If you do not have a dial tone, try unplugging all the telephones. Plug in one at a time and listen for dial tone. This will help you determine if the telephone instrument is broken or the phone service is completely out. If it is, contact the telephone company to report the problem and request repair.

Electrical systems:

- If you see sparks, broken or frayed wires or if you smell hot insulation, turn off the electricity at the main fuse box or circuit breaker.
- If there is a pool of water on the floor between you and the fuse box or circuit breaker panel, use a dry wooden stick to turn off the main fuse or breaker, but do not step or stand in the water. If you cannot reach the fuse box or breaker panel, call a qualified electrician for assistance.
- Inspect the panel box for any breakers that may have tripped. A tripped breaker may indicate damaged wiring inside your home. Do not turn on breakers that tripped; instead, turn tripped breakers to the “off” position and mark them with a piece of tape to indicate which ones were tripped when you found them. Have a qualified electrician determine if there are hidden internal electrical problems and fix them.
- Turn off all other circuit breakers except the one marked “main” and the breakers for the room(s) in which you will be working. When the power is restored, turn breakers back on, one at a time, for each room as you get to it during the recovery/restoration process.
- Use a flashlight to inspect each fuse to see if it is still in working order. Replace each broken fuse with a fuse of exactly the same amperage rating. Do not use fuses of lower or higher ratings as replacements.

Fire

Climate control systems:

- If you have a heating oil tank system, turn off all valves and contact a professional specializing in maintenance of such equipment before using it again.

Plumbing:

- If you suspect sewage lines are damaged, avoid using sinks, showers or toilets and call a plumber.
- If water pipes are damaged, turn off the water at the main valve. Call a plumber for assistance.

Checking household items:

- Normal household items, such as cleaning products, can cause toxic fumes and other hazards if they mix. If you smell a noxious odor, or your eyes water from fumes of mixed chemicals, open a window and get out of your home. Call for professional help.
- If there are spilled chemicals that do not pose a health risk, be sure to put on rubber gloves in addition to other protective clothing. Clean up spills carefully. Discard spilled chemicals and rags used for cleaning according to the advice of local authorities.
- Throw away food, beverages and medicine exposed to heat, smoke or soot. Food that was in the freezer can be used if it still has ice crystals on it. If not, discard it.

When making repairs:

- Carefully follow the instructions provided with tools and equipment (such as power tools) to maintain personal safety at all times. Wear personal protective equipment—including goggles, gloves, long sleeves and long pants—whenever you are operating power equipment. Keep children away from power equipment.
- Damaged locks (especially iron locks) should be taken apart and wiped with oil. If locks cannot be removed, squirt machine oil through a bolt opening or keyhole, and work the knob to distribute the oil. Hinges should also be thoroughly cleaned and oiled.

Cleaning up and removing smoke odor:

Fire

- There are some products available for reducing odors in fabrics. These products will list these properties on the label. A product with tri-sodium phosphate (TSP) is a common cleaning agent. It can be purchased under the generic name TSP. It is a caustic substance and should be used with care. Use and store it out of reach of children and pets. Read the label for further information and safety instructions. Any product that is not clearly described as suitable for use on personal clothing or fabrics that come in contact with skin should never be used for the removal of smoke odors from clothing.
- Test garments before using any treatment, and follow the manufacturer's instructions. Smoke odor and soot can sometimes be washed from clothing that can be bleached with 4 to 6 tbsp. TSP, 1 cup household cleaner or chlorine bleach, to every gallon of warm water. Mix well, add clothes and rinse with clear water. Dry thoroughly. Alternatively, consider washing clothes in cold water with your usual household laundry detergent and adding one tablespoon of pure vanilla extract. This solution also has been shown to remove smoke odors on kitchen surfaces and washable furniture. To remove soot and smoke from walls, furniture and floors, use a mild soap or detergent or mix together 4 to 6 tbsp. TSP and 1 cup household cleaner or chlorine bleach to every gallon of warm water. Wear rubber gloves when cleaning with this solution. Be sure to rinse your walls and furniture with clear, warm water and dry thoroughly after washing them with this.
- Pots, pans, flatware, etc., should be washed with soapy water, rinsed and then polished with a fine-powdered cleaner. You can polish copper and brass with salt sprinkled on a piece of lemon or salt sprinkled on a cloth saturated with vinegar.
- Wipe leather goods with a damp cloth, then a dry cloth. Stuff purses and shoes with newspaper to retain shape. Leave suitcases open. Leather goods should be dried away from heat and sun. When leather goods are dry, clean with saddle soap. Rinse leather and suede jackets in cold water and dry away from heat and sun.
- Washable wallpaper can be cleansed like painted walls, but do not wet through the paper. Work from bottom to top to prevent streaking. Use a commercial paste to replace any loose edges or sections. Wash a small area of the walls at a time, working from the floor up. Then rinse the wall with clear water immediately. Ceilings should be washed last. Do not repaint until walls and ceilings are completely dry. Reduce the chances of growth of mold and mildew by wiping down all surfaces that had gotten wet with a solution of one cup of liquid household bleach to a

Fire

gallon of water. Test painted, textured or wallpapered surfaces to ensure that the bleach solution will not discolor these surfaces. To conduct this test, wipe a small area of the surface with the bleach solution, and allow it to dry at least 24 hours.

- Consult a professional about replacing drywall and insulation that has been soaked by water from fire hoses. Water-damaged drywall and insulation must be replaced. It cannot be dried out and maintain structural integrity or resistance to mold and mildew.

Recovering financially:

- Contact your insurance agent, broker or insurance company as soon as you can to report how, when and where the damage occurred. Provide a general description of the damage.
- Prepare a list of damaged or lost items and provide receipts if possible. Consider photographing or videotaping the damage where it occurred for further documentation to support your claim.
- If possible, keep damaged items or portions of those items until the claims adjuster has visited your home. Do not throw away anything you plan to claim without discussing it with your adjuster first.
- Keep receipts for all additional expenses that you may incur such as lodging, repairs or other supplies.
- Make copies of all documents and pictures given to your claims adjuster or insurance company. Besides insurance, there are many questions related to taxes, expenses and determining just how you will recover from a personal financial point of view. For helpful advice, please see Disaster Recovery: A Guide to Financial Issues (A5076), which is available from [your local Red Cross chapter](#) and at www.redcross.org.

Rebuilding:

- Make sure that the contractor rebuilding your home obtains a building permit and follows the current building, fire and electrical codes for your area. Ask a professional about having automatic residential fire sprinklers installed during the reconstruction process. It is much less expensive to have sprinklers installed during reconstruction instead of after the construction is complete.

Fire

- Make sure that smoke alarms are installed following your local fire protection codes. We recommend having smoke alarms installed inside each sleeping room, hallway outside sleeping areas and at least one on every floor of your home. The smoke alarms should be interconnected so that if one alarm sounds, all will sound. The alarms should be operated by both household power and batteries in case the household power is out (New fire codes require this type of smoke alarm to be installed. Check with local authorities about the prevailing fire code in your area.).
- It is a good idea to make sure that you have updated your Family Disaster Plan and replenished essential disaster supplies just in case a disaster happens again. You will always feel better knowing that you are prepared and ready for anything.
- Consider purchasing homeowner's or renter's insurance.
- Make copies of important documents, such as birth and marriage certificates and insurance policies, and store these in a safe place.

Smoke Alarms and Fire Extinguishers

Properly installed and maintained smoke alarms provide an early warning to your household and can save your life and the lives of your loved ones.

There are two basic types of smoke detectors:

- Ionization alarms sound more quickly when flaming, fast moving fire occurs.
- Photoelectric alarms are quicker at sensing smoldering, smoky fires.
- Combination smoke alarms that combine both types are available and preferred for home safety.
- Special smoke alarms are made to assist those with hearing disabilities often times using strobe lights and/or vibrate assistance.
- Smoke alarms can be purchased at your local hardware, home supply or general merchandise stores. Some fire departments offer smoke alarms for little or no cost.

What you need to know about smoke alarms:

Installing smoke alarms:

Fire

- Smoke alarms should be installed on every level of your home and near sleeping areas.
- When installing smoke alarms, always follow the manufacturer's installation instructions.
- Alarms that are hard wired need to be installed by a qualified electrician.
- If you need assistance with installing a smoke alarm, call your local fire department's non-emergency phone number. Many fire departments will install smoke alarms for you.

Maintenance:

- Smoke alarms should be tested every month. This is a good time to practice your escape plans!
- Batteries should be changed once a year and replaced every 8-10 years.

Fire extinguishers:

When used properly fire extinguishers can be life- and property-saving.

Types of fire extinguishers:

- Class A will put out fires in ordinary combustibles: cloth, wood, rubber, paper and many plastics.
- Class B extinguishers are to be used on fires involving flammable liquids, such as grease, gasoline, oil and oil-based paints.
- Class C extinguishers are suitable for use on electrically energized fires (i.e., fires involving appliances, tools or other equipment that is plugged in).

PASS the test in using your extinguisher:

- Pull the pin at the top of the extinguisher that keeps the handle from being accidentally pressed.
- Aim the nozzle toward the base of the fire, standing approximately eight feet away from the fire.
- Squeeze the handle to discharge the extinguisher and release the handle to stop.
- Sweep the nozzle back and forth at the base of the fire.

Use a fire extinguisher ONLY if:

Fire

- You have alerted other occupants and someone has called the fire department.
- The fire is small and contained to a single object, such as a wastebasket.
- You are safe from the toxic smoke produced by the fire.
- You have a means of escape identified and the fire is not between you and the escape route.
- Your instincts tell you that it is safe to use an extinguisher.
- Only use an extinguisher if ALL above conditions are met! When in doubt, just get out.

Treating Burns

While most victims of fires die from smoke or toxic gases, not from burns, what you do to treat a burn in the first few minutes after it occurs can make a huge difference in the severity of the injury.

Immediate treatment for burn victims:

1. “Stop, drop and roll” to smother flames.
2. Remove all burned clothing. If clothing adheres to the skin, cut or tear around burned areas.
3. Remove all jewelry, belts, tight clothing, etc., from over the burned areas and from around the victim’s neck. This is very important; burned areas swell immediately.
4. NEVER apply butter or other oily substances to a burn. They trap heat and make the burn worse.

First-degree burns involve the top layer of skin. Sunburn is a first-degree burn:

Signs:

- Red
- Painful to touch
- Skin will show mild swelling

Treatment:

- Apply cool, wet compresses or immerse in cool, fresh water. Continue until pain subsides.
- Cover the burn with a sterile, non-adhesive bandage or clean cloth.
- Do not apply ointments or butter to burn; these may cause infection.
- Over-the-counter pain medications may be used to help relieve pain and reduce inflammation.

Fire

- First-degree burns usually heal without further treatment. However, if a first-degree burn covers a large area of the body or the victim is an infant or elderly, seek emergency medical attention.

Second-degree burns involve the first two layers of skin.

Signs:

- Deep reddening of the skin
- Pain
- Blisters
- Glossy appearance from leaking fluid
- Possible loss of some skin

Treatment:

- Immerse in fresh, cool water, or apply cool compresses. Continue for 10 to 15 minutes.
- Dry with clean cloth and cover with sterile gauze.
- Do not break blisters.
- Do NOT apply ointments or butter to burns; these may cause infection.
- Elevate burned arms or legs.
- Take steps to prevent shock: lay the victim flat, elevate the feet about 12 inches and cover the victim with a coat or blanket. Do not place the victim in the shock position if a head, neck, back or leg injury is suspected, or if it makes the victim uncomfortable.
- Further medical treatment is required. Do not attempt to treat serious burns unless you are a trained health professional.

Third-degree burns penetrate the entire thickness of the skin and permanently destroy tissue.

Signs:

- Loss of skin layers.

Fire

- Often painless as nerve endings have been destroyed (Pain may be caused by patches of first- and second-degree burns which often surround third-degree burns.).
- Skin is dry and leathery.
- Skin may appear charred or have patches which appear white, brown or black.

Treatment:

- Cover burn lightly with sterile gauze or clean cloth (Do not use material that can leave lint on the burn.).
- Do not apply ointments or butter to burns; these may cause infection.
- Take steps to prevent shock: lay the victim flat and elevate the feet about 12 inches.
- Have person sit up if face is burned. Watch closely for possible breathing problems.
- Elevate burned area higher than the victim's head when possible. Keep person warm and comfortable, and watch for signs of shock.
- Do not place a pillow under the victim's head if the person is lying down and there is an airway burn. This can close the airway.
- Immediate medical attention is required. Do not attempt to treat serious burns unless you are a trained health professional.

Use Caution with Alternative Heating Sources

If the electric or gas utilities are interrupted during cold months, individuals will be more inclined to pursue alternative heating sources. According to the National Fire Protection Association (NFPA), in 2005, heating equipment was involved in an estimated 62,200 reported home structure fires, 670 deaths, 1,550 injuries and \$909 million in direct property damage. By following the safety tips below, you can protect yourself, your family and your home from potential fire and other utilities-related threats during a natural or manmade disaster.

NFPA and the Consumer Product Safety Commission recommend the following heating safety tips:

- Space heaters need space. Keep things that can burn, such as paper, bedding or furniture at least three feet away from heating equipment.
- Turn portable heaters off when you go to bed or leave the room.

Fire

- Plug power cords only into outlets with sufficient capacity and never into an extension cord.
- Inspect for cracked, frayed or broken plugs or loose connections. Replace before using.
- Have your chimney inspected each year and cleaned if necessary.
- Use a sturdy fireplace screen.
- Allow ashes to cool before disposing. Dispose of ashes in a metal container.
- Install smoke alarms in every bedroom, outside each sleeping area and on every level of the home. For the best protection, interconnect all smoke alarms throughout the home—when one sounds, they all sound.
- Test smoke alarms at least once a month.
- Use extreme caution when using a generator.
- Install and maintain a carbon monoxide alarm in a central location and outside each sleeping area.
- Never use an oven to heat your home.